IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors:	William E. Stafford	**Docket:**	BP2525
Serial No.:	10/633,242	**Art Unit:**	2109
Filed:	August 1, 2003	**Examiner:**	Jeffrey R. Swearingen
Title:	Interoperability of a Network Interface Protocol with an Internet Interface Protocol		

PRE-APPEAL BRIEF CONFERENCE REQUEST FOR REVIEW

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner,

It is respectfully requested that a review be made of the final rejection mailed October 16, 2008 (Office Action) prior to filing of the Appeal Brief. This request is being filed simultaneously with a Notice of Appeal. No amendments are filed with this request. Applicant believes that the rejections in the Office Action are clearly not proper and are without basis because there is a clear deficiency in the rejections.

Claim Rejections under 35 U.S.C. § 102(e)

The Office Action rejected claims 1 through 32 under U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,490,297 to Kraml et al. (the Kraml reference). Applicants believes that the rejections under 35 U.S.C. §102(e) in the Office Action are clearly not proper and are without basis because the Kraml reference applied to the claims fails to disclose each element of the claims, as explained below. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. . . . The identical invention must be shown in as complete detail as contained in the claim. M.P.E.P. 2131.

The Office Action states in paragraph 2 that "The claims as currently written perform no function other than channel hopping." This statement does not reflect aspects of the embodiments described in the specification and the claims. As stated in paragraphs 9-11 of the specification, a wireless transceiver (e.g., the client station) is required to occasionally scan the

available channels to see whether there are other nodes with which to communicate (i.e., other channels are supporting data of interest to the wireless communication device). Because of the nature of wireless networks, the scanning process requires that the station to temporarily leave the channel that is supporting a current communication by tuning and listening to one or more different channels to determine if there is any interest in association with one of these other channels. A significant period of time is required to make such a determination for each channel. In many wireless local area networks (WLAN), multiple frequencies and/or network interface protocols may be used (e.g., IEEE 802.11b, IEEE 802.11a, and/or IEEE 802.11g protocols), which increases the number of channels that must be scanned and correspondingly increases the time it takes to scan all of the channels. While the time it takes to scan multiple channels over multiple network interface protocols, the data throughput performance impact on the station is modest. However, the data throughput for higher layer protocols, such as Transmission Control Protocol/Internet Protocol (TCP/IP) may be significantly impacted. Such a significant impact results because TCP/IP measures the time that expires from when a source sends a packet to a destination until the source receives an acknowledgement (ACK) from the destination that it received the packet. If the time is greater than expected (e.g., a few hundred milliseconds plus some tolerance that accounts for reasonable transmission time variations), TCP/IP may interpret this as congestion (i.e., the network infrastructure is overworked and is slow in transferring packets). If the station is scanning other channels for a significant period of time (e.g., a few hundred milliseconds), TCP/IP may view this absence of support as congestion and evoke the multiplicative decrease congestion avoidance algorithm. As such, the TCP/IP throughput is unnecessarily reduced.

Certain embodiments of the invention address this problem. In one embodiment, a scan channel request is received of a plurality of channels that are in accordance with the network interface protocol. For example, the channels may be in accordance with IEEE 802.11a, IEEE 802.11b, and/or IEEE 802.11g or other protocol. The method then continues by determining whether an Internet packet is being received via one of the plurality of channels when the channel scan request is received (i.e., is a higher layer protocol supporting a current transmission). If so, the method continues by scanning at least one channel of the plurality of

channels, but does not scan all of the plurality of channels at one time. The method continues after the scanning by tuning to the channel supporting the higher layer protocol communication to transmit at least one outbound Internet packet. The method then continues by scanning at least another channel of the plurality of channels.

The Office Action has failed to show that the Kraml reference discloses the elements, *inter alia*, of claim 1 of, "when the Internet packet is being received when the channel scan request is received, wherein each of the plurality of channels have a different associated radio frequency (RF) signal; scanning at least one other channel of the plurality of channels, but less than all of the plurality of channels; after scanning the at least one other channel, tuning to the one of the plurality of channels and transmitting at least one outbound Internet packet; and scanning at least another channel of the plurality of channels."

The Office Action cites column 6, lines 15 through 35 of the Kraml reference as disclosing all the elements of claim 1. However, this citation of the Kraml reference fails to disclose the elements of claim 1. The Kraml reference with respect to Figure 2, states at column 6, lines 15 through 35:

> "At a step 112, the component controller 18 initializes the communication application stored in the component memory 20, and waits for the application to initialize for a predetermined time period "T". At a test 114, the component controller 18 then determines whether the communication application properly initialized at step 112. If the communication application successfully initializes within the time period T, then at a step 116 the component controller 18 executes the communication application and execution of the control program ends. If, on the other hand, the communication application does not properly initialize within the time period T, it is likely that the application may require additional control signals for proper initialization. Accordingly, at a step 118 the component controller 18 scans the communication link channels to identify additional channels and to thus receive the additional control signals before returning to test 104. Preferably the control signal carried by the signaling channel identified at step 102, as well as the additional control signals, include the identification code

> that specifies possible additional signaling channels to the component controller 18 so that, at step 118, the component controller 18 need only scan those signaling channels specified by the identification code."

The Kraml reference describes the communication application at column 4, lines 24 through 29 stating that:

> "The system component 16 also includes a component memory 20 for storing a communication application, such as a cellular telephone service provider module, that may be executed by the component controller 18 when communication between the system component 16 and the system controller 12 is established."

The Kraml reference thus only describes scanning the communication link channels to identify additional signaling channels when a communication application does not properly initialize within a time period T. The Kraml reference nowhere discusses when an Internet packet is being received or when a channel scan request is received. There is no discussion of scanning a plurality of channels or determining whether a packet is being received by a channel or scanning at least one but less than all of the channels and tuning to the one of the channels to transmit the packet. As such, the Kraml reference fails to disclose, *inter alia*, the elements of claim 1.

Furthermore, the Kraml reference fails to disclose the arrangement of the elements in claim 1. To anticipate, the reference must teach all of the limitations arranged or combined in the same way as recited in the claim. "Because the hallmark of anticipation is prior invention, the prior art reference—in order to anticipate under 35 U.S.C. § 102—must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Net MoneyIn v. Verisign,* Case 2007-1565 (Fed. Cir. 2008), citing *Connell v. Sears, Roebuck & Co.,* 722 F.2d 1542, 1548 (Fed. Cir. 1983). As explained above, if a station is scanning other channels for a significant period of time, TCP/IP may view this absence of support as congestion and evoke the multiplicative decrease congestion avoidance algorithm. An embodiment of the invention addresses this problem. As stated in claim 1, when the Internet packet is being received when the channel scan request is received, the method states scanning at least one other channel of the plurality of channels, but less than all of the plurality of channels;

after scanning the at least one other channel, tuning to the one of the plurality of channels and transmitting at least one outbound Internet packet; and scanning at least another channel of the plurality of channels. The Kraml reference nowhere discloses this arrangement of steps in claim 1. Furthermore, the Kraml reference nowhere discloses the problem identified by the specification of this application that TCP/IP may view an absence of support during a channel scan as congestion and evoke the multiplicative decrease congestion avoidance algorithm. As such, the Kraml reference fails to disclose or suggest the arrangement of the elements in claim 1.

In conclusion, the rejection of claim 1 as anticipated by the Kraml reference is clearly not proper and is without basis. The Kraml reference fails to disclose each and every element of claim 1 and fails to disclose the elements arranged as in claim 1. The dependent claims 2 through 7 add further patentable matter to Claim 1 and thus are further differentiated and patentable under 35 U.S.C. §102 over the Kraml reference.

For similar reasons as stated with respect to claim 1, the Office Action has failed to show that the Kraml reference discloses the elements of independent claims 8, 14, 20, 24 and 29. The dependent claims add further patentable matter to the independent claims and thus are further differentiated and patentable under 35 U.S.C. §102 over the Kraml reference.

CONCLUSION

For the above reasons, the rejections in the Final Office Action are clearly not proper and are without basis because there is a clear deficiency in the rejections. Therefore, it is respectfully requested that the rejection of the claims be withdrawn and full allowance granted.

Respectfully submitted,

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Dated: December 29, 2008

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